In addition to the parameters already noted above, a suitable daily dosage for any specific cyclosporin of formula IIIa in any particular indication will depend in particular on its relative potency of activity in relation to the indication, e.g. condition to be treated. The preferred cyclosporins of formula IIIa are

A. [(D)Thr]^8-Cyclosporine (c.f. example 5.1),

B. [Nva]^2-[(D)Ser]^8-Cyclosporine (c.f. examples 5.2 and 6), and

C. [Nva]^2-[Nva]^5-[(D)Ser]^8-Cyclosporine (c.f. example 5.5).

Obtained results for these in the above described tests are as follows:

COMPOUND	TEST 1.1	TEST 1.2 IC_{50} (μg/ml)	TEST 1.3	TEST 2 ED_{50}(mg/kg p.o.) TT	TEST 3 MED (mg/kg s.c.)
A	0.033	0.0016	0.008	13	50
B	0.031	<0.04	0.014	20	50
C	0.023	<0.04	<0.008		100

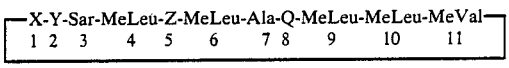
The cyclosporins of formula IIIa may be administered by any conventional route, in particular in accordance with means currently practiced in relation to administration of Cyclosporine, in particular via intravenous infusion, e.g. in the case of organ transplant, pre- and immediately post-transplant, as well as during episodes of gastrointestinal disturbance which might otherwise impair absorption, or orally, e.g. in the form of an oral solution.

In accordance with the foregoing the present invention also provides:

1. A pharmaceutical composition comprising a cyclosporin of formula IIIa as hereinbefore defined together with a pharmaceutically acceptable diluent or carrier therefor.
2. A cyclosporin of formula IIIa as hereinbefore defined for use as a pharmaceutical, i.e. for use in treatment by surgery or therapy, in particular for use as an immunosuppressant or anti-inflammatory or anti-parasitic agent, as well as
3. A method of inducing immunosuppression, of treating inflammation or of treating parasitic infection, in a subject in need of such treatment, which method compounds administering to said subject an effective amount of a cyclosporin of formula IIIa as hereinbefore defined.

I claim:

1. A cyclosporin of formula I



(I)

wherein

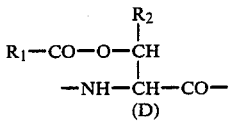
X is —MeBmt— or —dihydro—MeBmt—,

Y is —αAbu—, —Ala—, —Thr—, —Val— or —N-va—,

Z is —Val— or —Nva—, and

Q is a residue of formula II

(II)



(D)

wherein R_1 is hydrogen, C_{1-4}alkyl or phenyl and R_2 is hydrogen or methyl.

2. A cyclosporin according to claim 1 which is [O-acetyl-(D)-Ser]^8-Cyclosporine.

3. A cyclosporine according to claim 1 which is [Nva]^2-[O-acetyl-(D)Ser]^8-Cyclosporine.

4. A cyclosporin according to claim 1 selected from the group consisting of:

[Dihydro-MeBmt]^1-[O-acetyl-(D)Ser]^8-Cyclosporine;

[O-benzoyl-(D)Ser]^8-Cyclosporine; and

[Dihydro-MeBmt]^1-[Nva]^2-[O-acetyl-(D)Ser]^8-Cyclosporine;[Nva]^5-[O-acetyl-(D)Ser]^8-Cyclosporine;

[O-acetyl-(D)Thr]^8-Cyclosporine;

[Val]^2-[O-acetyl-(D)Ser]^8-Cyclosporine;

[Dihydro-MeBmt]^1-[Val]^2-[O-acetyl-(D)Ser]^8-Cyclosporine;

[Nva]^2-[Nva]^5-[O-acetyl-(D)Ser]^8-Cyclosporine;

[Thr]^2-[O-acetyl-(D)Ser]^8-Cyclosporine; and

[Dihydro-MeBmt]^1-[Thr]^2-[O-acetyl-(D)Ser]^8-Cyclosporine.

5. A pharmaceutical composition useful in inducing immunosuppression or treating inflammation or parasitic infection comprising a cyclosporin as defined in claim 1 together with a pharmaceutically acceptable diluent or carrier therefor.

6. A method of inducing immunosuppression, of treating inflammation or of treating parasitic infection in a subject in need of such treatment, which method comprises administering to said subject an effective amount of a cyclosporin as defined in claim 1.

* * * * *